AF/ IFW

"PATENT"

APPEAL BRIEF TRANSMITTAL FORM

In re application of: Ian A. Cody, et al.
U.S. Serial No.: 10/678,689
Filed: October 3, 2003
For: PROCESS FOR MAKING A LUBE BASESTOCK

) Before the Board of
) Patent Appeals and Interferences
) Examiner: Tam M. Nguyen
)
) Confirmation Number: 9953
) Group Art Unit: 1764
) Family Number: JJK-0330
) (P2002J098)

Commissioner for Patents
Mail Stop Appeal Brief - Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

[x] The undersigned hereby certifies having information and a reasonable basis for belief that this correspondence will be deposited as first-class mail with the United States Postal Service in an envelope addressed to the: Commissioner for Patents, Mail Stop Appeal Brief - Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on 1/29/07

Sharon Osowski	Sharon Osowski	1/29/07
Type or print name of person signing certification	Signature	Date

Enclosed is the Appeal Brief in the above-noted application

The item(s) check below are appropriate:

[X] $500.00 Fee for Appeal Brief.

[X] Petition for extension of time pursuant to 37 CFR 1.136 and 1.137 is hereby made if, and to the extent, required. The fee for this extension of time is calculated to be $ 120.— to extend the time for filing this paper until 1-30-2007.

[X] Total Fee $ 620.—.

[X] Charge $ 620.— to **Deposit Account No. 05-1330**.

[X] The Commissioner is hereby authorized to charge any additional fees under 37 CFR 1.16 and 1.17 which may be required by this paper, or credit any overpayment to **Deposit Account No. 05-1330**. A duplicate copy of this Form is enclosed.

January 29, 2007
DATE OF SIGNATURE

Lawrence E. Carter
ATTORNEY OR AGENT OF RECORD

Post Office Address (to which correspondence is to be sent):
ExxonMobil Research and Engineering Company
P. O. Box 900, Annandale, New Jersey 08801-0900

LAWRENCE E. CARTER
Registration Number: 51,532
Facsimile Number: (908) 730-3649

27810
PATENT TRADEMARK OFFICE

"PATENT"

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of Ian A. Cody, et al.	)	Before the Examiner Tam M Nguyen
U. S. Serial No.: 10/678,689	)	Confirmation Number: 9953
Filed: October 3, 2003	)	Group Art Unit: 1764
For: PROCESS FOR MAKING A LUBE BASESTOCK	)	Family Number: JJK-0330 (P2002J098)

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

[X] The undersigned hereby certifies having information and a reasonable basis for belief that this correspondence will be deposited as first-class mail with the United States Postal Service in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450 on January 29, 2007.

APPEAL BRIEF

Sir:

Further to the Notice of Appeal filed October 30, 2006, this appeal brief is presented for consideration. This Appeal Brief is accompanied by a request for a one-month (1) extension under 37 CFR 1.136(a). No additional fees are believed to be required. However, a formal request for any extension and payment of fees is made below in the event such fees will be necessary.

TABLE OF CONTENTS

I.	REAL PARTY IN INTEREST	3
II.	RELATED APPEALS AND INTERFERENCES	4
III.	STATUS OF CLAIMS	5
IV.	STATUS OF AMENDMENTS	6
V.	SUMMARY OF CLAIMED SUBJECT MATTER	7
VI.	GROUNDS OF REJECTION TO BE REVIEWED	9
VII.	ARGUMENT	10
VIII.	CONCLUSION	18
IX.	CLAIM APPENDIX	19
X.	EVIDENCE APPENDIX	26
XI.	RELATED PROCEEDINGS APPENDIX	27

I. REAL PARTY IN INTEREST

The real party in interest for this application is Exxon Mobil Research and Engineering Co., the assignee of record, which is a subsidiary of Exxon Mobil Corporation.

II. RELATED APPEALS AND INTERFERENCES

None.

III. STATUS OF CLAIMS

The claims currently pending are claims 1 – 3, 7 – 14, 18 – 27, and 29 – 33. All claims are currently rejected. All pending claims are included in this appeal.

IV. STATUS OF AMENDMENTS

After mailing of the August 3, 2006 final Office Action, a request for reconsideration was filed on October 3, 2006. The request for reconsideration did not include amendments to the pending claims. An Advisory Action was issued on October 17, 2006, indicating that the request for reconsideration had been entered. In the Advisory Action, the Examiner maintained the rejection of all of the pending claims.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Claims 1, 13, and 26 are independent claims.

Claim 1 provides a process for preparing a lubricating oil basestock having a VI of at least about 135. The process includes hydrotreating a lubricating oil feedstock having a wax content of at least about 60 wt.% based on feedstock, with a hydrotreating catalyst under effective hydrotreating conditions such that less than 5 wt.% of the feedstock is converted to 650°F (343°C) minus products. (Paragraph 0007 - Page 2, lines 16 – 21.) This produces a hydrotreated feedstock with a VI increase that is less than 3 greater than the VI increase of the feedstock. (Paragraph 0019 - Page 7, lines 17 – 22.) The hydrotreated feedstock is stripped to separate gaseous from liquid product. (Paragraph 0020 - Page 7, lines 24 – 27.) The liquid product is hydrodewaxed with a dewaxing catalyst which is ZSM-48 under catalytically effective conditions. (Paragraph 0021 - Page 8, line 16; Paragraph 7 – Page 2, line 24 – Page 3, line 2; Paragraph 0025 – Page 9, lines 21 – 25) The dewaxing catalyst contains at least one of Pt or Pd. (Paragraph 0023 – Page 8, lines 25 – 28) The hydrodewaxing produces a dewaxed product having a pour point of -17°C or less. (Last line of Table 15 in Example 5 – Page 20, line 19; See also Table 12 in Example 4 and Table 24 in Example 8)

Claim 13 provides a process for preparing a lubricating oil basestock having a VI of at least about 125. The process includes hydrotreating a lubricating oil feedstock having a wax content of at least about 50% based on feedstock, with a hydrotreating catalyst under effective hydrotreating conditions such that less than 5 wt% of the feedstock is converted to 650°F (343°C) minus products. (Paragraph 0008 – Page 3, lines 4 – 9.) This produces a hydrotreated feedstock with a VI increase that is less than 3 greater than the VI of the feedstock. (Paragraph 0019 - Page 7, lines 17 – 22.) The hydrotreated feedstock is stripped to separate gaseous from liquid product. (Paragraph 0020 - Page 7, lines 24 – 27.) The liquid product is hydrodewaxed with a dewaxing

catalyst which is ZSM-48 under catalytically effective conditions. (Paragraph 0021 - Page 8, line 16; Paragraph 7 – Page 2, line 24 – Page 3, line 2; Paragraph 0025 – Page 9, lines 21 – 25) The dewaxing catalyst contains at least one of Pt or Pd. (Paragraph 0023 – Page 8, lines 25 – 28) The hydrodewaxing produces a dewaxed product having a pour point of -17°C or less. (Last line of Table 15 in Example 5 – Page 20, line 19; See also Table 12 in Example 4 and Table 24 in Example 8.) The dewaxed product is hydrofinished with a mesoporous hydrofinishing catalyst from the M41S family under hydrofinishing conditions. (Paragraph 0008 – Page 3, lines 19 – 20)

Claim 26 provides a process for preparing a lubricating oil basestock having a VI of at least about 135. The process includes hydrotreating a lubricating oil feedstock having a wax content of at least about 50% based on feedstock, with a hydrotreating catalyst under effective hydrotreating conditions such that less than 5 wt% of the feedstock is converted to 650°F (343°C) minus products. (Paragraph 0009 – Page 3, lines 22 – 26.) This produces a hydrotreated feedstock with a VI increase that is less than 3 greater than the VI increase of the feedstock. (Paragraph 0019 - Page 7, lines 17 – 22.) The hydrotreated feedstock is stripped to separate gaseous from liquid product. (Paragraph 0020 - Page 7, lines 24 – 27.) The liquid product is hydrodewaxed with a dewaxing catalyst which is ZSM-48 under catalytically effective conditions. (Paragraph 0021 - Page 8, line 16; Paragraph 7 – Page 2, line 24 – Page 3, line 2; Paragraph 0025 – Page 9, lines 21 – 25) The dewaxing catalyst contains at least one of Pt or Pd. (Paragraph 0023 – Page 8, lines 25 – 28) The hydrodewaxing produces a 370°C+ product in a yield of greater than 50 wt.% based on feed to the hydrodewaxing that has a pour point of -17°C or less. (Table 15 in Example 5 – Page 20, lines 15 – 19; See also Table 12 in Example 4 and Table 24 in Example 8) The dewaxed product is hydrofinished with a mesoporous hydrofinishing catalyst from the M41S family under hydrofinishing conditions. (Paragraph 0009 – Page 4, lines 8 – 9) The hydrofinished product has an aromatics content of about zero. (Paragraph 0026 – Page 10, lines 6 – 8)

VI. GROUNDS OF REJECTION TO BE REVIEWED

1. Whether claims 11 – 14, 18 – 27, and 29 – 33 are unpatentable under 35 U.S.C. §103(a) over US 6,264,826 (Xiao) in view of US 5,837,639 (Kresge) and further in view of either US 4,906,350 (Lucien) or US 5,935,417 (Cody).

2. Whether claims 1 – 3 and 7 – 10 are unpatentable under 35 U.S.C. §103(a) over US 6,264,826 (Xiao) in view of either US 4,906,350 (Lucien) or US 5,935,417 (Cody).

VII. ARGUMENT

Applicants note that Grounds of Rejection 1 and 2 differ only in the inclusion of the Kresge reference in Ground of Rejection 1. The Kresge reference does not impact the patentability arguments presented here, so the arguments for patentability of independent claims 13 and 26 (rejected under Ground of Rejection 1) apply equally to independent claim 1 (rejected under Ground of Rejection 2).

To avoid unnecessary repetition of arguments, the patentability of all claims will be discussed under the heading of Ground of Rejection 1. In order to comply with 37 CFR 41.37 (c)(1)(vii), a separate heading will be provided for Ground of Rejection 2. The separate heading will refer to the arguments presented to overcome Ground of Rejection 1.

Ground of Rejection 1: Rejection of claims 11 – 14, 18 – 27 and 29 – 33 under 35 U.S.C. §103(a) over US 6,264,826 (Xiao) in view of US 5,837,639 (Kresge) and further in view of US 4,906,350 (Lucien) or US 5,935,417 (Cody)

The rejection of claims 11 – 14, 18 – 27, and 29 – 33 under 35 U.S.C. §103(a) over US 6,264,826 (Xiao) in view of US 5,837,639 (Kresge) and further in view of either US 4,906,350 (Lucien) or US 5,935,417 (Cody) is respectfully traversed. The rejection fails to provide a proper prima facie case of obviousness for at least three reasons. First, the references cited by the Examiner, either alone or in combination, fail to describe or suggest each and every element of the claimed invention. Second, the modifications to Xiao necessary to arrive at the claimed invention are not permissible, as the modifications would change the principle of operation of Xiao and/or render Xiao unsatisfactory for its intended purpose. Finally, no motivation to modify Xiao to arrive at the claimed invention can be found in the cited references, and no other effective source of motivation has been identified.

A. THE CITED REFERENCES FAIL TO DESCRIBE OR SUGGEST ALL ELEMENTS OF THE CLAIMED INVENTION

The claimed invention requires a hydrotreating process under conditions effective to produce a hydrotreated feedstock whose viscosity index (VI) increase is less than 3 greater than the VI of the feedstock.

The claimed invention provides a process for preparing a lubricating base oil with a viscosity index (VI) greater than 125 or 135. As part of this process, the claimed invention requires hydrotreating a feedstock to produce a hydrotreated feedstock whose VI increase is less than 3 greater than the VI of the feedstock. (See Claims 1, 13, and 26.) In the claimed invention, having a VI increase of less than 3 greater than the VI of the feedstock means that the modifications to the molecules in the feedstock are kept to a minimum. This is desirable for use in conjunction with the claimed ZSM-48 dewaxing catalyst, which shows improved operation when used on minimally modified feedstocks.

The cited references

The Xiao reference is also directed to a process for preparing a lubricating oil basestock. The lubricating oil basestocks in Xiao are Group II or Group III basestocks, which correspond to basestocks with a VI of at least 80 or at least 120. As part of the process, Xiao requires a hydrotreating process that produces a hydrotreated feedstock with a significantly increased VI that is at least 5 greater than the VI of the feedstock. This VI increase is achieved while maintaining a ratio of VI increase to volumetric cracking conversion of greater than 1.0. (Xiao, Col. 7, line 62 – Col. 8, line 26)

Lucien describes a process for preparing a lubricating oil basestock by catalytic dewaxing. Lucien states that a hydrocrackate of a wax-containing mineral oil fraction is a suitable feedstock for the catalytic dewaxing process. Lucien does not describe having a hydrotreating step prior to catalytic dewaxing, nor does Lucien explicitly discuss modifying the VI of a feedstock prior to catalytic dewaxing.

Cody describes a process for making a lubricating oil basestock by catalytic dewaxing. Cody describes using some combination of up to two hydroconversion steps and/or a hydrofinishing step prior to catalytic dewaxing. The hydroconversion steps in Cody are designed to increase the VI of the feedstock substantially prior to dewaxing. For example, Figures 4 and 5 provide examples of conditions needed to increase VI by 20 during hydroconversion. Cody does not describe or suggest a hydroconversion process with a VI increase of less than 3.

Kresge is primarily directed to a hydroprocessing catalyst and the synthesis of such a catalyst. Kresge does not appear to discuss hydrotreatment of a feedstock prior to dewaxing. However, in Example 25 Kresge does describe hydrocracking of a lube product after dewaxing to increase a lube stock with a VI of 53 to a VI that is at least 20 higher. Kresge does not describe or suggest a hydroconversion process with a VI increase of less than 3.

The cited references fail to describe or suggest each element of Claim 1.

The requirement in Xiao of having a hydrotreating process to produce a hydrotreated feedstock whose VI increase is 5 or greater is in direct contrast to the claimed invention, which requires a VI increase of less than 3. Xiao has no disclosure or suggestion that the hydrotreating step can be operated to achieve a VI increase of less than 3, as required by the claimed invention. Thus, Xiao fails to describe or suggest this element of the claimed invention. The Cody, Lucien, and/or Kresge references cited by the Examiner do not have any teaching or suggestion that cures this deficiency in Xiao. Therefore, the cited references, either alone or in combination, fail to describe or suggest each element of the claimed invention. (In re Royka, 490 F.2d 981; MPEP 2143.03.) Withdrawal of the rejection of claims 11 – 14, 18 – 27, and 29 – 33 is requested for at least this reason.

B. MODIFYING XIAO TO HAVE A VI INCREASE OF LESS THAN 3 WOULD CHANGE THE PRINCIPLE OF OPERATION OF THE XIAO REFERENCES AND/OR RENDER XIAO UNSATISFACTORY FOR ITS INTENDED PURPOSE

Modifying Xiao to have a VI increase of less than 3 would change the principle of operation of the Xiao reference and/or render Xiao unsatisfactory for its intended purpose

The only hydrotreatment processes described in Xiao explicitly require a viscosity index increase of 5 or greater, in contrast to the claimed invention. The effect of the Xiao hydrotreating process on the viscosity index is specifically discussed at Col. 7, line 62 – Col. 8, line 52. For example, "During hydrotreating according to the present invention, the viscosity index of the hydrotreated oil is increased significantly, with relatively little yield loss." (Xiao, Col. 7, lines 62 – 64, emphasis added.) "Thus, during hydrotreating according to the present process, the viscosity index of the petroleum feedstock is increased by at least 5 viscosity index unites, and preferably increased by between about 5 and about 25 viscosity index units, wherein the viscosity index of the petroleum feedstocks and of the hydrotreated oil are on a dewaxed basis." (Xiao, Col. 8, lines 21 – 26.) Additionally, claim 1 of Xiao (the only independent claim) recites that the hydrotreating step produces "a hydrotreated oil having a viscosity index of at least about 5 greater than the viscosity index of the petroleum feedstock."

The above statements demonstrate that having a viscosity index increase of 5 or more is a required part of how the process in Xiao operates. This is further confirmed by the numerous other descriptions in Xiao of having a VI increase of 5 or more after hydrotreating. For example, in Tables II – IV of Example 5, all of the hydrotreatment processes shown have a VI increase of at least 8. Additionally, Xiao describes that in embodiments where a feedstock is solvent extracted prior to hydrotreatment, the solvent extraction can be performed at a lower severity which allows for production of a higher yield of a lower VI feedstock. Finally, Xiao has no teaching or example of any type to indicate that the hydrotreating process in Xiao can produce a VI increase of less than 5.

The requirement in Xiao that the VI increase from the hydrotreatment step is 5 or greater is in direct contrast to the VI increase of 3 or less required by the claimed invention. The Office Action states, however, that it would be obvious to modify Xiao to have a VI increase of less than 3. No supporting reference is provided that describes having a VI increase of less than 3. Instead, the Office Action simply states that one of skill in the art would be motivated to modify the process in Xiao.

Regardless of motivation, the modification proposed in the Office Action is not permissible, as such a modification would change the principle of operation of the Xiao reference. (In re Ratti, 270 F.2d 810 (CCPA 1959); MPEP 2143.01.VI) As shown above, one of the basic principles of operation in Xiao is to substantially increase the viscosity index of a feedstock during a hydrotreatment step in order to achieve production of the desired Group II or Group III basestocks. According to the process provided in Xiao, operating a hydrotreating process to have a VI increase of 3 or less would be contrary to the desired goal of producing the desired high VI basestocks. The modifications proposed in the rejection would also ignore the explicitly described purpose hydrotreatment process in Xiao. Furthermore, the proposed modifications would reduce or eliminate the advantage described in Xiao of being able to solvent extract a feedstock with a lower severity to improve yield. There is no way to reconcile the conflict between Xiao's explicit teaching that VI is significantly increased by hydrotreating, and the proposed modification of Xiao to avoid significant increase in the VI. For similar reasons, the modification proposed in the Office Action is not permissible, as such a modification would render Xiao unsatisfactory for its intended purpose. (In re Gordon, 733 F.2d 900 (Fed Cir 1984); MPEP 2143.01.V) Because the proposed modification of Xiao that is needed to form a prima facie case of obviousness would change the principle of operation of Xiao and/or destroy the operability of Xiao for its intended purpose, the rejection of claims 11 – 14, 18 – 27, and 29 – 33 should be withdrawn for at least this additional reason.

C. NO MOTIVATION EXISTS TO MODIFY THE CITED REFERENCES TO ARRIVE AT THE CLAIMED INVENTION

Even if Xiao could somehow be modified to achieve a VI of less than 3 without destroying the operability of Xiao for its intended purpose, no motivation is provided by the prior art to arrive at the claimed invention. (In re Linter, 458 F.2d 1013, 1016; MPEP 2143.01) In fact, the only teaching provided by Xiao expressly contradicts the requirements of the claimed invention. Thus, taken as a whole, Xiao teaches away from the claimed invention. (MPEP 2141.03.VI) Additionally, one of skill in the art would not be motivated to modify Xiao to arrive at the claimed invention. As a result, a proper prima facie case of obviousness has not been achieved, as a sufficient motivation for modifying the Xiao reference has not been identified. (In re Vaeck, 947 F.2d 488 (Fed Cir 1991); MPEP 2143)

Applicants respectfully submit that there is no support, suggestion, or motivation of any type based on Xiao or the other cited references to modify Xiao to arrive at the claimed invention. To cure this deficiency in the cited references and supply an alleged motivation, the Office Action mailed on August 3, 2006 states on pages 3 and 4 that:

"It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Xiao by operating the hydrotreating zone at even more mild conditions to produce a hydrotreated product having VI increase less than 4 [sic] greater than the VI of the feedstock as claimed because operating the hydrotreating zone at severe conditions would produce a desired low sulfur product, but such conditions would cost more to operate and would hydrogenate desirable products such as olefins. Therefore, one of skill in the art would select to operate the Xiao process to produce a hydrotreated product as claimed when one desires to operate the hydrotreating zone with no hydrogenation or very little hydrogenation of desirable products (e.g., olefins.)."

(A similar statement can be found on pages 3 and 4 of the Office Action mailed on January 26, 2006.)

The above statement fails to provide a proper motivation for forming a prima facie case of obviousness for at least the following reasons:

A) The above motivation for modifying Xiao ignores Xiao's stated purpose of providing a hydrotreating step with a VI increase of 5 or greater. Xiao explicitly states that the hydrotreating step should significantly increase the VI. This explicit teaching is ignored and instead an alleged motivation is provided to modify Xiao to have a hydrotreatment step with exactly the opposite feature – namely, a hydrotreatment step that avoids significantly increasing the VI. Because Xiao clearly requires a significant increase in VI, Xiao cannot provide the motivation for modifying the hydrotreating process in Xiao to avoid a significant increase in VI. Additionally, there is no disclosure or suggestion in Lucien, Cody, or Kresge that would cause one of skill in the art to simply ignore this explicit teaching of Xiao. In this situation, Xiao either teaches away from the claimed invention when Xiao is considered as a whole, and/or the proposed modification destroys the utility of Xiao for its intended purpose.

B) The motivation for modifying Xiao suggested in the August 3, 2006 Office Action is inappropriate for a process designed to produce a lubricating oil basestock. The Office Action states that modifying the hydrotreating step of Xiao to have even milder conditions would be desirable to minimize olefin loss. This justification is difficult to understand, as olefin preservation is typically a consideration when attempting to preserve octane for a motor fuel. In the context of producing a lubricating oil basestock, olefin preservation is usually not a concern. In fact, preservation of olefins would typically tend to decrease the VI of a basestock. Since both Xiao and the claimed invention are directed to production of high VI basestocks rather than motor fuels, this suggested motivation is in fact contrary to the teaching of the prior art.

C) Similarly, it is not clear why one of skill in the art would want to reduce hydrogenation of the basestock during processing. As with olefin preservation, reducing hydrogenation is a desirable effect for a motor fuel. By contrast, Xiao states

that hydrogenation is necessary for producing the desired high VI basestocks, as hydrogenation removes aromatics that might lead to instability. (Xiao, Col. 11, lines 47 – 51) Because hydrogenation is a desired effect for production of the high VI basestocks in Xiao, this suggested motivation is in fact contrary to the teaching of the prior art.

Based on the above, neither the cited references nor the rationale provided in the Office Action provides a motivation for why one of skill in the art would modify and/or combine Xiao with other references to arrive at the claimed invention. As a result, the rejection of claims 11 – 14, 18 – 27, and 29 – 33 should be withdrawn for at least this additional reason.

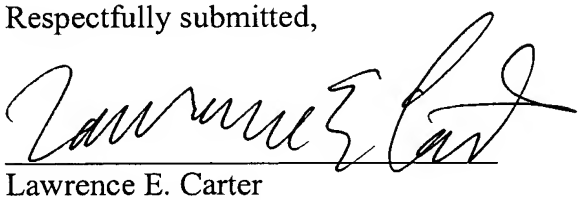
Ground of Rejection 2: Rejection of claims 1 – 3 and 7 – 10 under 35 U.S.C. §103(a) over US 6,264,826 (Xiao) in view of US 4,906,350 (Lucien) or US 5,935,417 (Cody)

The rejection of claims 1 – 3 and 7 – 10 under 35 U.S.C. §103(a) over Xiao in view of either Lucien or Cody is also respectfully traversed. This rejection is traversed for the same reasons identified in Ground of Rejection 1 above. Thus, for at least the above reasons, withdrawal of the rejection of claims 1 – 3 and 7 – 10 is respectfully requested.

VIII. CONCLUSION

Having demonstrated that all rejections of claims have been overcome, this application is in condition for allowance. Accordingly, applicants request reversal of the grounds of rejection listed in section VI of this brief.

Respectfully submitted,



Lawrence E. Carter
Attorney for Applicant(s)
Registration No. 51,532
Telephone Number: (908) 730-3632
Facsimile Number: (908) 730-3649

[X] Pursuant to 37 CFR 1.34(a)

ExxonMobil Research and Engineering Company
P. O. Box 900
Annandale, New Jersey 08801-0900

1/26/06

IX. CLAIM APPENDIX

1. A process for preparing a lubricating oil basestock having a VI of at least about 135 which comprises:

(1) hydrotreating a lubricating oil feedstock having a wax content of at least about 60 wt. %, based on feedstock, with a hydrotreating catalyst under effective hydrotreating conditions such that less than 5 wt. % of the feedstock is converted to 650° F (343°C) minus products to produce a hydrotreated feedstock whose VI increase is less than 3 greater than the VI of the feedstock;

(2) stripping the hydrotreated feedstock to separate gaseous from liquid product; and

(3) hydrodewaxing the liquid product with a dewaxing catalyst which is ZSM-48 under catalytically effective hydrodewaxing conditions wherein the dewaxing catalyst contains at least one of Pt or Pd and hydrodewaxing produces a dewaxed product having a pour point of -17°C or less.

2. The process of claim 1 wherein the hydrotreating catalyst contains at least one Group 6, Group 9 or Group 10 metal.

3. The process of claim 1 wherein the hydrotreating conditions include a temperature of

from 150-400°C, a pressure of from 1480-20786 kPa, a liquid hourly space velocity from 0.1-10 hr^{-1} and a hydrogen treat rate of 89-1780 m^3/m^3.

4 – 6. (Canceled)

7. The process of claim 1 wherein hydrodewaxing conditions include a temperature of from 250-400°C, a pressure of from 791-20786 kPa, a liquid hourly space velocity from 0.1-10 hr^{-1} and a hydrogen treat rate of 45-1780 m^3/m^3.

8. The process of claim 1 wherein the dewaxing catalyst is sulfided, reduced, or sulfided and reduced.

9. The process of claim 1 wherein hydrodewaxed liquid product from step (3) is hydrofinished under effective hydrofinishing conditions.

10. The process of claim 9 wherein the hydrofinishing includes a hydrofinishing catalyst containing at least one Group 6, Group 9 or Group 10 metal.

11. The process of claim 9 wherein the hydrofinishing includes a hydrofinishing catalyst which is a mesoporous catalyst from the M41S family.

12. The process of claim 11 wherein the hydrofinishing catalyst contains at least one

noble metal.

13. A process for preparing a lubricating oil basestock having a VI of at least about 125 which comprises:

(1) hydrotreating a lubricating oil feedstock having a wax content of at least about 50 wt. %, based on feedstock, with a hydrotreating catalyst under effective hydrotreating conditions such that less than 5 wt. % of the feedstock is converted to 650°F (343°C) minus products to produce a hydrotreated feedstock to produce a hydrotreated feedstock whose VI increase is less than 3 greater than the VI of the feedstock;

(2) stripping the hydrotreated feedstock to separate gaseous from liquid product;

(3) hydrodewaxing the liquid product with a dewaxing catalyst which is ZSM-48 under catalytically effective hydrodewaxing conditions wherein the dewaxing catalyst contains at least one of Pt or Pd and hydrodewaxing produces a dewaxed product having a pour point of -17°C or less; and

(4) hydrofinishing the product from step (3) with a mesoporous hydrofinishing catalyst from the M41S family under hydrofinishing conditions.

14. The process of claim 13 wherein the hydrotreating conditions include a temperature of from 150-400°C, a pressure of from 1480-20786 kPa, a liquid hourly space velocity

from 0.1-10 hr^{-1} and a hydrogen treat rate of 89-1780 m^3/m^3.

15 – 17. (Canceled)

18. The process of claim 13 wherein hydrodewaxing conditions include a temperature of from 250-400°C, a pressure of from 91-20786 kPa, a liquid hourly space velocity from 0.1-10 hr^{-1} and a hydrogen treat rate of 45-1780 m^3/m^3.

19. The process of claim 13 wherein the M41S family includes MCM-41, MCM-48 and MCM-50.

20. The process of claim 19 wherein the M41S family is MCM-41.

21. The process of claim 13 wherein hydrofinishing conditions include a temperature of from 150-350°C, a pressure of from 2889-20786 kPa, a liquid hourly space velocity from 0.1-5 hr^{-1} and a hydrogen treat rate of 45-1780 m^3/m^3.

22. The process of claim 13 wherein the dewaxing catalyst is sulfided, reduced, or sulfided and reduced.

23. The process of claim 13 wherein the hydrotreating catalyst contains at least one Group 6, Group 9 or Group 10 metal.

24. The process of claim 13 wherein the hydrofinishing catalyst contains at least one noble metal.

25. The process of claim 24 wherein the noble metal is at least one of Pt or Pd.

26. A process for preparing a lubricating oil basestock having a VI of at least about 135 which comprises:

(1) hydrotreating a lubricating oil feedstock having a wax content of at least about 60 wt. %, based on feedstock, with a hydrotreating catalyst under effective hydrotreating conditions such that less than 5 wt. % of the feedstock is converted to 650°F (343°C) minus products to produce a hydrotreated feedstock to produce a hydrotreated feedstock whose VI increase is less than 3 greater than the VI of the feedstock;

(2) stripping the hydrotreated feedstock to separate gaseous from liquid product;

(3) hydrodewaxing the liquid product with a dewaxing catalyst which is ZSM-48 under catalytically effective hydrodewaxing conditions wherein the dewaxing catalyst contains at least one of Pt or Pd wherein hydrodewaxing produces a 370°C+ dewaxed product in a yield of greater than 50 wt.% based on feed to the hydrodewaxing and having a pour point of -17°C or less, and

(4) hydrofinishing the product from step (3) with MCM-41 under hydrofinishing conditions wherein hydrofinished product has an aromatics content of about zero.

27. The process of claim 26 wherein the hydrotreating conditions include a temperature of from 150-400°C, a pressure of from 1480-20786 kPa, a liquid hourly space velocity from 0.1-10 hr^{-1} and a hydrogen treat rate of 89-1780 m^3/m^3.

28. (Canceled)

29. The process of claim 26 wherein the dewaxing catalyst is sulfided, reduced, or sulfided and reduced.

30. The process of claim 26 wherein hydrodewaxing conditions include a temperature of from 250-400°C, a pressure of from 791-20786 kPa, a liquid hourly space velocity from 0.1-10 hr^{-1} and a hydrogen treat rate of 45-1780 m^3/m^3.

31. The process of claim 26 wherein hydrofinishing conditions include a temperature of from 150-350°C, a pressure of from 2889-20786 kPa, a liquid hourly space velocity from 0.1-5 hr^{-1} and a hydrogen treat rate of 45-1780 m^3/m^3.

32. The process of claim 26 wherein the feedstock wax content is at least about 75 wt.%.

33. The process of claim 26 wherein MCM-41 contains at least one of Pt or Pd.

X. EVIDENCE APPENDIX

The following patents were cited by the Examiner and relied on in both the Office Action mailed on January 26, 2006, and the final Office Action mailed on August 3, 2006. Copies of these references are included with this appeal brief, in accordance with 37 CFR 41.37 (c)(1)(ix).

1. U.S. Patent 6,264,826 (Xiao)

2. U.S. Patent 5,935,417 (Cody)

3. U.S. Patent 5,837,639 (Kresge)

4. U.S. Patent 4,906,350 (Lucien)

XI. RELATED PROCEEDINGS APPENDIX

None